

REMARKS

In the December 19, 2008 Office Action, claims 1-17 stand rejected in view of prior art. No other objections or rejections were made in the Office Action.

Status of Claims and Amendments

In response to the December 19, 2008 Office Action, Applicant has amended claims 1, 2, 7, 16 and 17 as indicated above. Thus, claims 1-17 are pending, with claims 1 and 2 being the only independent claims. Reexamination and reconsideration of the pending claims are respectfully requested in view of above amendments and the following comments.

Rejections - 35 U.S.C. § 103

In numbered paragraphs 2 and 3 of the Office Action, claims 1-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Japanese Laid-Open Patent Application Publication No. 2004-028891 to Takayuki Seki et al. (hereinafter “JP ’891 publication”) in view of U.S. Patent No. 6,023,497 to Takahashi et al. (hereinafter “Takahashi et al. patent”). In response, Applicant has amended independent claims 1 and 2 to further clarify these claims.

More specifically, independent claims 1 and 2 now clearly recite creating a plurality of ***next-generation image processing procedures*** by ***blending*** a plurality of image processing procedures selected from the plurality of image processing procedures. Such amendments are clearly supported in the original specification (the English translation of the international application), for example, in line 29 on page 18 to line 14 on page 19. In other words, claims 1 and 2 now recite features of the so-called genetic algorithm (GA) for optimizing the image processing procedures. With such an arrangement, for example, by blending a plurality of image processing procedures to create the next-generation image processing procedures and then calculating the degree of adaptability of each of the next-generation image processing

procedures with respect to the X-ray image, it is possible to select an image processing procedure that is more likely to have a higher degree of adaptability. Clearly this arrangement is *not* disclosed or suggested by the JP '891 publication, the Takahashi et al. patent or any other prior art of record.

Applicant respectfully asserts *both* the JP '891 publication and the Takahashi et al. patent are *absolutely silent* about the so-called genetic algorithm type processing in which the *next-generation image processing procedures* are created by *blending* selected image processing procedures.

In rejecting claim 16, the Office Action appears to indicate the Takahashi et al. patent¹ discloses creating a next-generation image processing procedure by blending two image processing procedures. However, the Takahashi et al. patent merely discloses using a specific coefficient matrix for performing a sum-or-product operation of a kernel to calculate the weighted average over the kernel. Although several different coefficient matrixes (e.g., FIGS. 3-6 and 19-28) are shown in the Takahashi et al. patent, the Takahashi et al. patent discloses those different coefficient matrixes are used *independently* in separate embodiments. In other words, the Takahashi et al. patent is *absolutely silent* about *blending* a plurality of image processing procedures selected from the plurality of image processing procedures to create the next-generation image processing procedures.

Similarly, the JP '891 publication merely discloses using several filters (Fa, Fb, Fc) *separately* for processing the X-ray image to obtain separate X-ray processing data (Iva, Ivb, Ivc) as shown in Figure 5(a)-(c). Thus, the JP '891 publication does *not* disclose or suggest

¹ Applicant notes that the "Takayuki" (i.e., the JP '891 publication) and the "Takahashi" (i.e., the Takahashi et al. patent) are used in the Office Action in somewhat confusing manner. Applicant believes the Office Action intends to refer to the Takahashi et al. patent, not the JP '891 publication, in rejection of claims 16 and 17.

blending a plurality of image processing procedures selected from the plurality of image processing procedures to create the next-generation image processing procedures.

Accordingly, since ***neither*** the JP '891 publication ***nor*** the Takahashi et al. patent discloses or suggests ***blending*** a plurality of image processing procedures selected from the plurality of image processing procedures to create the ***next-generation image processing procedures***, a hypothetical combination of these references would still ***fail*** to disclose or suggest the limitations now recited in independent claims 1 and 2.

Under U.S. patent law, the mere fact that the prior art can be modified does ***not*** make the modification obvious, unless an ***apparent reason*** exists based on evidence in the record or scientific reasoning for one of ordinary skill in the art to make the modification. See, KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1741 (2007). The current record ***lacks*** any apparent reason, suggestion or expectation of success for modifying the patents to create Applicant's unique arrangement recited in independent claims 1 and 2.

Moreover, Applicant believes that dependent claims 3-17 are also allowable over the prior art of record in that they depend from independent claim 2, and therefore are allowable for the reasons stated above. Thus, Applicant believes that since the prior art of record does not disclose or suggest the invention as set forth in independent claim 2, the prior art of record also fails to disclose or suggest the inventions as set forth in the dependent claims.

Also, the dependent claims 3-17 are further allowable because they include additional limitations. For example, claims 7 and 17 further recite one of the features of the so-called genetic algorithm in that these claims require ***repeating a routine for creating the next-generation image processing procedures*** and ***calculating the degree of adaptability*** to optimize the image processing procedures. Applicant believes such a specific arrangement

recited in claims 7 and 17 is neither disclosed nor suggested by the JP '891 publication, the Takahashi et al. patent, or any other prior art of record.

Accordingly, Applicant respectfully requests that this rejection be withdrawn in view of the above comments and amendments.

Prior Art Citation

In the Office Action, additional prior art references were made of record. Applicant believes that these references do not render the claimed invention obvious.

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In view of the foregoing amendment and comments, Applicant respectfully asserts that claims 1-17 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

Respectfully submitted,

/Nomugi Tomoyori/
Nomugi Tomoyori
Reg. No. 59,784

GLOBAL IP COUNSELORS, LLP
1233 Twentieth Street, NW, Suite 700
Washington, DC 20036
(202)-293-0444
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